Photo by Dennis L. Carlson

Union local moves to new west-side office

The American Federation of Government Employees Local 2263 moved out of their longstanding location in Building 20200 on the east side of Kirtland AFB and into Building 926 on the west side Jan. 12.

Building 926 is on Biggs Avenue, just west of Truman Street.

The union is hosting an all-day open house with light refreshments Jan. 26, and a ribbon-cutting ceremony at 2 p.m.

TEAM KIRTLAND is invited to visit the new office and to attend the ceremony.

The union can be reached at 846-4363, fax 853-2343, e-mail afge.2263@kirtland.af.mil and on-line at www.AFGE2263.org.

Special shots

Proctor and Gamble annually sponsors the Special Olympics display at the Commissary and hosts games using products as a fundraiser for the local chapter of the nonprofit organization. On Jan. 10, the Commissary's bathroom tissue basketball hoop shoot allowed Commissary customers to win prizes for making baskets. The proceeds from the game are contributed to the local chapter of Special Olympics. Stephen Peterson, left, tries a toss in the hoop shoot this year. The Commissary won the Special Olympics display contest for its third year.

Engineers mix fuel for 'killer laser'

Airborne Laser engineers have successfully prepared and assessed a 1,200-gallon batch of chemicals that help make up the delicately balanced formula necessary to create a laser beam capable of destroying a ballistic missile, Col. Ellen Pawlikowski, Airborne Laser System Program director, said recently.

The event occurred on Dec. 18 at the Airborne Laser facility at Edwards AFB, Calif., two weeks after a shipment of 4,400 gallons of hydrogen peroxide was delivered to the chemical mixing facility.

"We're very excited about this batch because it is the initial step taking us to first light," said Colonel Pawlikowski, referring to the production of a laser beam from the Chemical Oxygen Iodine Laser (COIL) modules that will be installed on the Airborne Laser's first aircraft, YAL-1A.

Colonel Pawlikowksi, who holds a doctorate in chemical engineering from the University of California at Berkeley, said the batch was a mixture of hydrogen peroxide and potassium hydroxide, a salt that enhances and sustains the chemical reaction inside the megawatt-class COIL.

U. S. Air Force photo

The nose of an old 747, rescued from a salvage yard, protrudes through the exterior wall of the Airborne Laser's System Integration Laboratory at Edwards AFB, Calif. Engineers are using the hulk as a platform to build and test the Chemical Oxygen Iodine Laser (COIL), the system that produces the megawatt-class beam needed to destroy a ballistic missile.

There are four lasers on the heavily modified 747-400 Freighter but only the COIL operates with liquid and gaseous chemicals. The others are lower-powered lasers used to identify, define and track boosting missiles.

Airborne Laser's job is station itself near a zone from which missiles are likely to be fired, then find, track and destroy the weapons soon after they leave their launchers.

Airborne Laser uses infrared sensors and two of its four lasers to identify a newly launched missile and determine its suitability as a target. A third laser measures and compensates for the atmospheric disturbance between the aircraft and the target. The fourth and final laser to fire–the COIL–causes the missile to kill itself when the powerful beam heats up the metal skin over the missile's fuel tank, causing it to rupture.

YAL-1A, currently is in a hangar at Edwards AFB while preparations are being made to install the COIL and the complicated optical system that guides the laser beams to the target.

The COIL beam-generating process begins when chlorine gas is injected into a spray of hydrogen peroxide and chemical salts, producing excited oxygen. Iodine gas is then mixed with the excited oxygen to produce excited iodine. When the iodine returns to its normal or ground state it emits flashes of light called photons, which are collected and amplified to create a beam capable of zeroing in on a target several hundred miles away.

Although one laser module has been successfully built and tested, manufacturing 118 per cent of anticipated power, no one has ever successfully fired a unit comprised of the six modules to be used on YAL-1A, each the size of an SUV turned on end and weighing 4,500 pounds.

The six-module unit is being assembled in a special hangar in the Airborne Laser area at Edwards AFB called the System Integration Laboratory. The modules will be tested there before they are installed on YAL-1A, which is in its own protected area nearby.

"If things go according to plan, we will be firing the six modules by next Spring," Colonel Pawlikowksi said.

She said after the batch was mixed and evaluated it was ejected and neutralized in a test of the system the Airborne Laser proposes to dispose of its volatile chemicals in case of an in-air emergency.

Airman Leadership School graduates

Airman Leadership School Graduates Class 04-A. The Kirtland AFB Airman Leadership School held a graduation ceremony on Nov. 6.

Award recipients for the class were:

John L. Levitow Award
Senior Airman Christian Fernandes

Academic Achievement Award
Senior Airman Anthony R. Getchell

Leadership Award
Senior Airman Joshua C. Ishiki

The following are the graduates:

Space and Missile Systems Center Detachment 12
Norman Birt

551st Special Operations Squadron
Jason A. Bowles

58th Maintenance Squadron
Juan J. Cruz
Joshua C. Ishiki
Charles T. McCoy
Carlos J. Morales

58th Aircraft Maintenance Squadron
Christofer Curtis
Christian Fernandes
Anthony R. Getchell
Justin R. Tuck
Timothy R. Vinson

377th Mission Support Squadron
Misty M. Johnson

58th Operations Support Squadron
James R. Woods IV

The students of Class 04-A volunteered four hours in support of the 377th Medical Group's training exercise.

Airman Leadership School Graduates Class 04-B. The Kirtland AFB Airman Leadership School held a graduation ceremony on Dec. 18.

Award recipients for the class were:

John L. Levitow Award
Senior Airman Sean M. Cook

Distinguished Graduate Award
Senior Airman Thomas H. Dutton

Academic Achievement Award
Senior Airman Aaron K. Lamb

Leadership Award
Senior Airman Euell B. Cook

The following are the graduates:

58th Maintenance Squadron
Kristopher Abbott
Euell B. Cook
Joseph R. Garcia
Alberto Molina

58th Operations Support Squadron
Robert D. Arnold Jr.

377th Security Forces Squadron
Matilde F. Colomo
Joshua D. Davis
David E. Otjens

31st Test and Evaluation Squadron, Detachment 1
Sean M. Cook

58th Aircraft Maintenance Squadron
Thomas H. Dutton
Mark C. Hashimoto
Aaron K. Lamb
Jason P. Marroquin
Robert Ortiz-Camacho
Nicholas J. Renne

The students decorated the Mountain View Club for the holidays and assembled the Holiday baskets. They also donated toys for homeless children.